Guess Paper 2021 (ALP)

INTER PART-I

القدیر گیس پیپرز

BIOLOGY

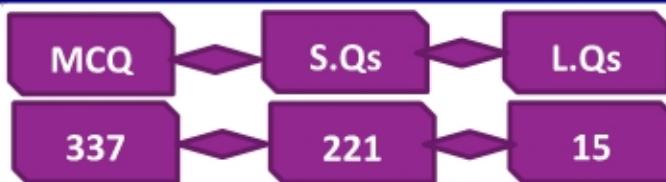
امتحان میں 100% کامیابی کی گارنٹی

☆ پیپر Setter کے ذہن کو مدنظر رکھ کر تیار کیے گئے سوالات

☆ یاد رکھیں! اب وقت انتہائی کم رہ گیا ہے۔

* صرف 15 دن کے اندر بورڈ امتحان کی مکمل تیاری کریں۔

اہم ترین مختصر، انشائیہ اور حل شدہ معروضی سوالات کے ساتھ

MCQ	S.Qs	L.Qs
337	221	15

پنجاب کے تمام بورڈ کے لیے (اعلیٰ نمبروں کے حصول کی ضمانت)

ہمیں تشہیر کی خواہش نہیں بس روشنی کی ہے

کسی کو مت بتانا یہ دیے ہم نے جلائے ہیں

Objective Type

1	The basic unit of classification is			
	a) Genus	b) Phylum	✓c) Species	d) Class
2	Orders include related			
	a) Species	✓b) Genera	c) Classes	d) Family
3	The thick walled reproductive cells of cyanobacteria are called			
	a) Heterocyts	✓b) Akinete	c) Hormogonia	d) All of these
4	Which of the one in the following is a prokaryote			
	a) Amoeba	b) Algae	c) Fungi	✓d) Blue green algae
5	Reserve food material in Cyanobacteria is			
	a) Starch	✓b) Glycogen	c) Fats	d) All of these
6	An example of aerobic bacterium is			
	a) Camplyobacter	b) E.Coli	✓c) Pseudomonas	d) Spirochete
7	Which one of t he following is anaerobic bacteria			
	a) E.Coli	b) Spirochete	✓c) Pseudomonas	d) Campylobacter
8	Bacteria without any flagella are called			
	a) Peritrichous	✓b) Atrichous	c) Monotrichous	d) None of these
9	Reserve food material in cyanobacteria is			
	✓a) Glycogen	b) Cellulose	c) Glucose	d) Starch
10	Which is the anaerobic bacterium			
	✓a) Spirochete	b) Pseudomonas	c) Campylobacter	d) E.Coli
11	Spirochete is a bacterium			
	a) Aerobic	✓b) Anaerobic	c) Facultivate	d) None of these
12	The pore by which the water leaves the body of sponges is called			
	a) Ostia	b) Mouth	c) Anus	✓d) Osculum
13	The inner layer of most sponges is called			
	a) Pinacoderm	✓b) Choanoderm	c) Endoderm	d) Epiderm
14	An example of beautiful and delicate sponge called Venus flower basket is			
	a) Sycon	b) Leucosolenia	c) Euplectella	✓d) Spongilla
15	In sponges asexual reproduction takes place by buding . The internal buds are called			
	a) Globules	✓b) Gemmules	c) Endosperm	d) Cyst
16	Excess gastric secretion is an important factor of			
	a) Obesity	b) Piles	c) Food poisoning	✓d) Peptic ulcer
17	Fresh saliva has pH			
	a) 4	✓b) 6	c) 8	d) 7.3
18	Taste buds of tongue play important role in food			
	a) Digestion	✓b) Selection	c) Lubrication	d) Mastication
19	Which of the following is a parasitic plant ?			
	a) Drosera	b) Dionea	✓c) Cuscuta	d) Sarracenia
20	pH of fresh saliva is nearly			
	✓a) 6	b) 7	c) 8	d) 9
21	Excess gastric secretions is an important factor of			

	✓a) Peptic ulcer	b) Obesity	c) Piles	d) Food poisoning
22	**Length of the duodenum is**			
	a) 20 - 25 cm	✓b) 20 - 25 meters	c) 20 - 25 mm	d) 20 - 25 Km
23	**Which one of the following is not a ciliate ?**			
	a) Stentor	b) Paramecuim	✓c) Trypanosoma	d) Vortecella
24	**One or small diploid micronodei of ciliates function in .**			
	a) Sexual process	✓b) Sheath	c) Pellicle	d) Cuticle
25	**Test of forminifera is made of .**			
	a) Silica	b) Calcium	✓c) Calcium phosphate	d) Chitin
26	**Mosquito Injects**			
	a) Merozoites	b) Oocytes	c) Gametocytes	✓d) Sporozoites
27	**Apicomplexans move by**			
	a) Tube feet	b) Cilia	✓c) Flexing	d) Pseudopodia
28	**Mosquito injects plasmodium to human in the form of .**			
	✓a) Sporozoites	b) Gametocytes	c) Merozoites	d) Cysts
29	**The sexual process is exhibited by most cilites by .**			
	a) Binary fission	✓b) Conjugation	c) Budding	d) Fertilization
30	**Sleeping sickness is spread by .**			
	✓a) Tsetse fly	b) Mosquito	c) Trypanosoma	d) Plasmoduim
31	**Study of tissue is called .**			
	a) Microbiology	b) Morphology	✓c) Histology	d) Anatomy
32	**The branch of Biology which deals with the study of environment relations of organisms is called .**			
	a) Morphology	✓b) Ecology	c) Evolution	d) Zoogeography
33	**The study of parasite is called .**			
	a) Paleontology	b) Histology	c) Mircorbiology	d) Parasitology
34	**Internal morphology is also called .**			
	a) Physiology	✓b) Anatomy	c) Histology	d) Paleontology
35	**The branch of biology which deals with study of ancestral history is .**			
	a) Genetics	b) Zoogerography	c) Evolution	✓d) Paleontology
36	**Biology is short of laws because of .**			
	✓a) Exclusive nature of life	b) Large population of human	c) Less falsification	d) Less tentation
37	**The tentative explanation of observation .**			
	a) Hypothesis	b) Deduction	c) Law	d) Theory
38	**In deductive reasoning we move from .**			
	✓a) General to specific	b) General to general	c) Specific to general	d) Specific to specific
39	**If a theory survives and continues to be supported by experimental evidence becomes a .**			
	a) Hypothesis	b) Universal formula	✓c) Scientific law	d) Deduction
40	**Transgenic plants can be propagated by .**			
	a) Gene manipulation	✓b) Cloning	c) Genetic engineering	d) Tissue culture technique
41	**Which of the following are being used as bio - pesticides ?**			
	✓a) Bacteria	b) Fungi	c) Viruses	d) Algae
42	**Pasteurization is a technique developed by .**			

	a) Edward jenner	b) Robert Koch	c) Chamberlandt	✓d) Louis Pasteur
43	**The percentage by weight of RNA in a bacterial cell is .**			
	a) 0.25 %	b) 2 %	c) 3 %	✓d) 6 %
44	**Which of the following is a group of organic compounds ?**			
	a) Lipids , nucleic acids and nitric acid	✓b) Carbohydrates , lipids , nucleic acids	c) Proteins , acids , lipids	d) Carbon dioxide , acids , bases
45	**Of the total weight of a bacterial cell , carbohydrates constitute only .**			
	a) 2 %	b) 1 %	✓c) 3 %	d) 4 %
46	**18 % of the total weight of a mammalian cell is the .**			
	a) Water	✓b) Proteins	c) Carbohydrates	d) Lipids
47	**The total weight of a mammalian cell , DNA forms .**			
	a) 1 %	b) 1.1 %	c) 6 %	✓d) 0.25 %
48	**In bacterial cells the water percentage is .**			
	✓a) 70 %	b) 40 %	c) 60 %	d) 50 %
49	**Percentage of carbohydrates in mammalian cell is .**			
	a) 1 %	b) 2 %	c) 3 %	✓d) 4 %
50	**In free state , glucose in present in .**			
	✓a) Dates	b) Amylose	c) Glycogen	d) Cellulose
51	**Most abundant carbohydrate in nature is .**			
	a) Statch	b) Glycogen	✓c) Cellulose	d) Agar
52	**Cotton is a pure .**			
	✓a) Cellulose	b) Polysaccharide	c) Cellulose	d) Both a & b
53	**Animals obtain carbohydrates mainly from .**			
	a) Glucose	✓b) Starch	c) Sucrose	d) Glycogen
54	**Which one of following is not a Lipid ?**			
	a) Rubber	✓b) Chitin	c) Cutin	d) Cholesterol
55	**A heterogeneous group of compound related to fatty acid is .**			
	a) Proteins	✓b) Lipid	c) Carbohydrate	d) Nucleic Acid
56	**Lipids are insoluble in .**			
	✓a) Water	b) Chloroform	c) Alcohol	d) Carbon tetra chloride
57	**Which one of the following is not lipid ?**			
	a) Cholesterol	b) Wax	c) Terpenes	✓d) Keratin
58	**Iron containing protein is .**			
	a) Cytochrome	✓b) Ferredoxin	c) Plastocyanin	d) Plastoquinone
59	**Which of the following is not a fibrous protein .**			
	a) Keratin	b) Myocin	c) Fibrin	✓d) Hormones
60	**In the**			
	✓a) 3-6	b) 4-6	c) 5-6	d) 6-6
61	**Enzymes , antibodies , hormones and hemoglobin are examples .**			
	a) Carbohydrates	✓b) Globular proteins	c) Fibrous proteins	d) Lipids
62	**Haemoglobin is an example of which functional class of proteins ?**			
	a) Contractile	b) Structural	✓c) Transport	d) Regulatory
63	**Type of bond associated with maintaining primary structure of protein is .**			
	✓a) Disculfide bond	b) Peptide bond	c) Ester bond	d) Hydrogen bond

64	**Type of bond principally associated with maintaining alpha helix shape of protein ;**			
	a) Disulphide bond	b) Peptide bond	c) Ester bond	✓d) Hydrogen bond
65	**Which of the following structure is best represents structure of haemoglobin ?**			
	a) Primary	b) Secondary	c) Tertiary	✓d) Quaternary
66	**Amino acids are linked to each other by .**			
	a) Ester bond	b) Glysocidic	c) Hydrophobic	✓d) Peptide bond
67	**An amino acid contains an amino group and a carboxyl group attached to the same .**			
	✓a) Carbon atom	b) Hydrogen atom	c) Nitrogen atom	d) Oxygen atom
68	**Poisons like cyanide , antibiotics , anti-metabolites and some drugs are examples of .**			
	a) Holoenzymes	✓b) Inhibitors	c) Coenzymes	d) Enzymes
69	**An inhibitor is a chemical**			
	a) Enzyme	b) Protein	✓c) Substance	d) None of these
70	**An inhibitor react with enzyme but not transformed into**			
	a) Enzyme	✓b) Product	c) Co-enzyme	d) None of these
71	**The inhibitor which may destroy the globular structure of enzyme is .**			
	a) Competitive	b) Non-competitive	✓c) Irreversible	d) Reversible
72	**Irreversible inhibitors form which bond with active site ?**			
	a) Hydrogen bonds	b) Ionic bonds	✓c) Covalent bonds	d) Hydrophobic bonds
73	**The reversible inhibitors usually constitute**			
	a) Strong linkage with enzyme	b) No linkage with enzyme	✓c) Weak linkage with enzyme	d) Medium linkage with enzyme
74	**Non-competitive Inhibitors form enzyme inhibitor complex at a point other than the .**			
	a) Catalytic site	✓b) Active site	c) Binding site	d) Non-catalytic site
75	**Three dimensional globular protein is .**			
	a) Starch	b) Glucose	c) Antibiotic	✓d) Enzyme
76	**Enzyme lowers down the energy of .**			
	a) Kinetic	b) Potential	✓c) Activation	d) Ionic
77	**Small amounts of an**			
	a) Protein	b) Lipid	✓c) Enzyme	d) None of these
78	**Some enzymes require a ---- for their proper functioning .**			
	a) Co-enzyme	✓b) Co-factor	c) Holoenzyme	d) Apoenzyme
79	**Pepsinogen is an**			
	a) Active	✓b) Inactive	c) Inhibitor	d) None of these
80	**Which statement about enzyme is not true ?**			
	a) They consist of proteins , with or without a non-protein part	b) They change the rate of catalyzed reaction	c) They are sensitive to heat	✓d) They are non-specific in their action
81	**An enzyme is a three dimensional protein.**			
	a) Fibrous	b) Elastic	✓c) Globular	d) Insoluble
82	**Induced fit model was proposed by .**			
	a) Emil Fisher	✓b) Koshland	c) Jenner	d) Pasteur
83	**Lock and key model was proposed by .**			
	✓a) Emil Fisher	b) Koshland	c) Rudolph Virchow	d) Lorenz Oken
84	**Any factor that can alter the chemistry and shape of an enzyme can effect its rate of .**			

	a) Activity	b) Hydrolysis	✓c) Catalysis	d) Photolysis
85	The catalytic activity of an enzyme is restricted to its small portion called .			
	✓a) Active site	b) Allosteric site	c) Binding site	d) Catalytic site
86	Koshland in 1959 proposed the modified form of .			
	a) Fluid mosaic model	b) Unit membrane model	c) Induce Fit model	✓d) Lock and key model
87	The active site of the enzyme is made up of two definite regions i.e., the binding site and the			
	a) Non-binding site	b) Non-catalytic site	c) Inactive site	✓d) Catalytic site
88	The non protein part of enzyme responsible for its proper functioning is known as .			
	a) Substarte	✓b) Cofactor	c) Reactant	d) Product
89	Poisons like cyanide , antibiotics , anti-metabolites and some drugs are examples of .			
	a) Holoenzymes	✓b) Inhibitors	c) Coenzymes	d) Enzymes
90	An inhibitor is a chemical			
	a) Enzyme	b) Protein	✓c) Substance	d) None of these
91	An inhibitor react with enzyme but not transformed into			
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93	Irreversible inhibitors form which bond with active site ?			
	a) Hydrogen bonds	b) Ionic bonds	✓c) Covalent bonds	d) Hydrophobic bonds
94	The reversible inhibitors usually constitute .			
	a) Strong linkage with enzyme	b) No linkage with enzyme	✓c) Wear linkage with enzyme	d) Medium linkage with enzyme
95	Robert Brown reported the presence of .			
	a) Lysosome	b) Ribosomes	c) Mitochondria	✓d) Nucleus
96	Nucleus can be seen in a .			
	a) Mature cell	✓b) Non-dividing cell	c) Germinating cell	d) Dividing cell
97	Nucleus contains soluble sap called .			
	a) Protoplasm	b) Cytoplasm	✓c) Nucleoplasm	d) Nuclear sap
98	The size of prokaryotic ribosome is .			
	a) 30S	b) 50S	✓c) 70S	d) 80S
99	Prokaryotes include blue - green algae and .			
	a) Viruses	✓b) Bacteria	c) Protozoans	d) Protists
100	The prokaryotic cell can divide by .			
	a) Multiple fission	b) Mitosis	c) Meiosis	✓d) Binary fission
101	Perhaps the most distinctive feature of prokaryotic cell is its .			
	a) Cell membrane	b) Hereditary material	c) Ribosomes	✓d) Cell wall
102	Binomial system of nomenclature was devised by .			
	a) E-Chatton	b) Robert Whittaker	c) Ernst Hackle	✓d) Carlous Linnaeus
103	The Common name for solanum melangena is .			
	a) Onion	✓b) Brinjal	c) Potato	d) Amaltas
104	In the binomial system of taxonomy , developed during the 18th century by C. Linnaeus , the first word of an organism's name is its .			
	a) Species	✓b) Genus	c) Race	d) Family
105	Linnaeus published his list of animals in .			

	a) 1747	b) 1748	✓c) 1758	d) 1753
106	In the scientific name of onion , Allium cepa , the Allium belongs to its .			
	✓a) Genus	b) Group	c) Species	d) Family
107	Scientific name has advantage of having .			
	a) No scientific basis	✓b) Scientific basis and universally accepted	c) Same organisms having different names in different areas	d) Same name applied to different organism
108	Carlous Linnaeus took the scientific name from .			
	a) Greek word	b) Arabic word	✓c) Latin word	d) Urdu word
109	Initially , the classification was based on .			
	a) Genetic features	b) Physiology	✓c) Morphology	d) Cytology
110	The basic unit of classification is .			
	a) Genus	b) Phylum	c) Class	✓d) Species
111	Solanum esculentum is the scientific name of .			
	a) Potato	b) Tobacco	c) Onion	✓d) Tomato
112	Phylogeny describes a species .			
	a) Morphological similarities with other species	✓b) Evolutionary history	c) Reproductive compatibilities with other species	d) Geographical distribution
113	In the five - kingdom system of classification developed by Robert Whittaker , member of the kingdom Plantae are autotrophic , eukaryotic and .			
	✓a) Multicellular	b) Either unicellular or multicelliular	c) Motile	d) Have sexual reproduction
114	Five kingdom system of classification proposed by Margulis and Schwartz is not based on .			
	a) Genetics	✓b) Nucleic Acid	c) Cellular organization	d) Mode of nutrition
115	A third Kingdom protista was proposed to accommodate Euglena like organisms and bacteria , in 1866 by .			
	a) E-Chatton	✓b) Ernst Hackel	c) Linnaeus Carlous	d) Aristotle
116	The system of classification associated with three principal modes of nutrition photosynthesis , absorption and ingestion was proposed by .			
	✓a) Robert Whittaker	b) Carlous Linnaeus	c) Margulis & Schawartz	d) Ernst Hackel
117	Kingdom Animalia include eukaryotic multicellular .			
	✓a) Consumers	b) Reducers	c) Producers	d) Decomposers
118	Bactria range in size from about 0.1 to			
	a) 500	✓b) 600	c) 700	d) 800
119	The smallest bacteria are approximately the size of the largest viruses i.e.			
	a) Paramyxoviruses	b) Adenoviruses	c) Parvoviruses	✓d) Poxviruses
120	The diameter of staphylococcus and streptococcus is about .			
	a) 100 - 200 nm	b) 1.5 - 2	✓c) 0.75 - 1.25	d) 2 - 6
121	An outer flexible covering of ciliates is .			
	a) Cell wall	✓b) Pellicle	c) Sheath	d) Cuticle
122	Amoebic dysentery in .			
	a) Amoeba	b) Plasmodium	✓c) Entamoeba histolytica	d) Trypanosoma
123	Entamoeba histolytica cause amoebic .			
	a) Cholera	b) Fever	✓c) Dysentery	d) Migraine

124	The tsetse fly of African countries transmits trypanosome , the cause of .			
	✓a) Sleeping sickness	b) Measles	c) Lung infection	d) Malaria
125	The protozoans having two kinds of nuclei .			
	a) Zooflagellates	b) Amoeba	✓c) Ciliates	d) Actinopods
126	Amoeba moves and obtains food by means of .			
	a) Flagella	✓b) Pseudopodia	c) Flexing	d) Cilia
127	Pelomyxa palustris is an example of			
	a) Bacterium	b) Cilliate	c) Algae	✓d) Amocba
128	Pelomyxa Palustris is commonly called .			
	a) Entamoeba	b) Trypanosoma	c) Trichonymphas	✓d) Giant amoeba
129	The example of zooflagellates is .			
	a) Forams	b) Voritcella	c) Entamoeba	✓d) Trypanosoma
130	One of the most unusual protest phylum is that of .			
	✓a) Dinoflagellates	b) Zooflagellates	c) Euglenoids	d) Oomycotes
131	What regulation in freshwater ciliates is controlled by special organelles called .			
	a) Vacuoles	b) Golgi apparatus	✓c) Contractile vacuoles	d) Lysosomes
132	Complex specialized flagellates with many flagella are .			
	✓a) Trichonymphas	b) Trypanosoma	c) Euglena	d) Vorticella
133	The protists that live as symbionts in the guts of termites and help in the digestion of dry wood are .			
	✓a) Trichonymphas	b) Trypanosoma	c) Euglena	d) Vorticella
134	Members of phylum chrysophyta are commonly called .			
	a) Brown Algae	b) Red Algae	c) Dinoflagellates	✓d) Diatoms
135	Algae which take part in building coral reefs along with coral animals are .			
	✓a) Red algae	b) Brown algae	c) Green algae	d) Diatoms
136	Diatoms belongs to phylum .			
	a) Rhodophyta	b) Phaeophyta	✓c) Chrysophyta	d) Pyrrophyta
137	The largest brown algae are called .			
	a) Diatoms	✓b) Kelps	c) Dinoflagellates	d) Gelidium
138	The edible algae is .			
	✓a) Mushroom	b) Kelps	c) Dinoflagellates	d) Diatoms
139	Length of brown algae range from few centimeters to .			
	a) 170 meters	✓b) 75 meters	c) 70 meters	d) 75 cm
140	Most green algae possess cell wall with .			
	✓a) Cellulose	b) Chitin	c) Siliea	d) Pectin
141	Phyco erythrin is found is .			
	a) Green algae	✓b) Red algae	c) Brown algae	d) Blue green algae
142	Which of the following possess leaf like blades , stem like stipes , and root like anchoring holdfast ?			
	a) Eucalyptus	b) Agaricus	✓c) Kelps	d) Phytophthora
143	Most green algae possess cell walls with .			
	✓a) Cellulose	b) Chitin	c) Peptidoglycan	d) Pectin
144	Which phylum of algae do not have forms with flagellated motile cells in at least one stage of their life cycle .			
	a) Euglenophyta	b) Chlorophyta	✓c) Rhodophyta	d) Phaeophyta
145	Which is member of Pyrrophyta ?			

	a) Ulva	✓b) Gonyaulax	c) Fuscus	d) Frequilaria
146	**Marine algae are also source of many useful substances like .**			
	a) Algin	b) Agar	c) Carrageenan	✓d) All of these
147	**Oomycotes are close relatives of the .**			
	a) Algae	✓b) Fungi	c) Protozoa	d) Bacteria
148	**Which one has played infamous roles in human history as they were the cause of Irish potato famine of the 19th century ?**			
	a) Entomoeba histolytica	b) Physarum polycephalum	c) Trypanosoma gambiense	✓d) Phytophthora infestans
149	**Plasmodium (slime mold) is a multinucleate mass of cytoplasm that can grow in diameter to .**			
	a) 5 cm	b) 10 cm	c) 20 cm	✓d) 30 cm
150	**Cell walls of Oomycotes contain .**			
	✓a) Cellulose	b) Chitin	c) Peptidoglycan	d) Glycogen
151	**Fungus - like protists have bodies formed of threadlike structures called .**			
	a) Fibres	b) Yarns	✓c) Hyphae	d) Twines
152	**The plasmodial slime mold that is a model organism is .**			
	✓a) Physarum polycephahum	b) Ustilago tritici	c) Phytophthora infestans	d) Frequilaria
153	**Oomycotes include a number of pathogenic organisms , including .**			
	a) Physarum polycephalum	b) Rhodotorula	✓c) Phytophthora infestans	d) Candida albicans
154	**Parasitic fungi directly absorb nutrients from living host by .**			
	✓a) Haustoria	b) Roots	c) Rhizoids	d) Gametangia
155	**The cell wall of fungus contains .**			
	a) Cellulose	✓b) Chitin	c) Calcium carbonate	d) None of these
156	**Non-septate hyphae are called**			
	a) Monokaryotic	b) Dikaryotic	c) Mononucleatic	d) Coenocytic
157	**The body of a fungus (except yeast) is called .**			
	a) Thallus	b) Hyphae	✓c) Mycelium	d) Prothallus
158	**The non - hyphal unicellular fungi are .**			
	✓a) Yeasts	b) Morels	c) Truffles	d) Puffballs
159	**Some fungi are used to control environmental pollution , the process is called**			
	a) Biological control	✓b) Bioremediation	c) Fungal culture	d) Hydroponic
160	**Lichens are very good -----of air quality .**			
	a) Bioremediation	✓b) Bioindicators	c) Both a & b	d) None of these
161	**Kindgdom plantae mainly includes eukaryotic , autotrophic , multicellullar , non motile organisms which develop from**			
	a) Zygote	✓b) Embryo	c) Seed	d) None of these
162	**The sporophyte of bryophytes is .**			
	a) Haploid	✓b) Diploid	c) Triploid	d) Tetraploid
163	**Which plants are said to be the amphibians of the plant world ?**			
	a) Angiosperms	✓b) Bryophytes	c) Trachaeophytes	d) Spermatophytes
164	**Production of two types of gametes is called .**			
	a) Homogamy	b) Heterogamy	c) Sporophyte	✓d) Gametopmyte

No.				
165	**Which of the following is a modified leaf ?**			
	a) Tendril	b) Thorn	✓c) Flower	d) Both b & c
166	**The process of evolution of leaf was completed in more than .**			
	a) 15 - 16 million year	b) 15 - 19 million year	c) 15 - 17 million year	✓d) 15 - 20 million year
167	**Which of the following were the first plants that formed true leaves and roots ?**			
	a) Psilopsids	✓b) Lycopods	c) Megaphylls	d) Ferns
168	**When the forn in immature and young , it is coiled , this pattern of development is called .**			
	a) Nutation	b) Circum nutation	✓c) Circinate vernation	d) Reticulate vernation
169	**Large leaves having divided veins and veinlets with an expanded leaf blade or lamina are known as .**			
	a) Microphylls	✓b) Megaphylls	c) Frond	d) Compound leaf
170	**The leaves are called fronds in class .**			
	a) Angiospermae	✓b) Filicineae	c) Gymnospermae	d) Sphenopsida
171	**Sori are protected by the bent margin of the leaflet , forming false .**			
	✓a) Indusium	b) Stomium	c) Annulus	d) Capsule
172	**The microspores produced inside mircroporangia germinated to form .**			
	a) Male gametophyte	b) Microgametophyte	c) Female gematophyte	✓d) Both a & b
173	**It is a dry , indehiscent fruit in which fruit wall is completely fused with seed coat .**			
	a) Dryopsis	b) Testa	✓c) Caryopsis	d) Legume
174	**Development of protective layers around megasporangium is called .**			
	a) Microsporangium	b) Embryo sac	✓c) Integument	d) None of these
175	**The distal end of the megasporangium became modified for capturing**			
	a) Fruit	b) Seed	c) Zygote	✓d) Pollen
176	**In this group animals with ……… symmetry have been included .**			
	✓a) Radial	b) Bilateral	c) Both a & b	d) None of these
177	**In grade radiate the animal is divide into two equal halves and are**			
	✓a) Mirror image	b) Opposite	c) Right angle	d) None of these
178	**All the animals in grade radiate are**			
	a) Triploblastic	✓b) Diploblastic	c) Tetrablastic	d) Both a & b
179	**Water is more viscous than air .**			
	a) 10 times	b) 20 times	✓c) 50 times	d) 100 times
180	**The exchange of gases (CO2 and O2) between the organism and its environment is called .**			
	✓a) Respiration	b) Cellular respiration	c) External respiration	d) Anaerobic respiration
181	**Oxygen contents of fresh air are .**			
	✓a) 200 ml / litre	b) 100 ml / litre	c) 10 ml / litre	d) 150 ml / litre
182	**During photorespiration , glycine in converted into serine in the .**			
	✓a) Mitochondria	b) Ribosome	c) Golgi Bodies	d) Chloroplast
183	**During photorespiration , glycolate diffuses into the membrane bounded organelle named as .**			
	a) Mitochondria	b) Ribosome	✓c) Peroxisome	d) Golgi Bodies
184	**The main sites of exchange of gases in plants are .**			
	✓a) Stomata	b) Lenticel	c) Cuticle	d) Epidermis
185	**Respiration activity which occurs in plants during day time is called**			
	a) Respiration	✓b) Photorespiration	c) Digestion	d) None of these
186	**In the mitochondria where two glycine molecules are converted into**			

	a) Glycine	✓b) Serine	c) ATP	d) Glycolate
187	Guard cells become turgid and stoma or pore			
	a) Close	✓b) Open	c) Both a & b	d) None of these
188	is incorrect about guard cells .			
	a) Have chloroplasts	✓b) Connected to surrounding cells by plasmodesmata	c) Surrounding stoma	d) Bean shaped
189	According to one hypothesis , stomata opens due to the active transport of .			
	a) Sodium	✓b) Potassium	c) Sulphur	d) Nitrogen
190	A circulatory fluid is the			
	✓a) Blood	b) Water	c) Secretion	d) Hormones
191	A contractile pumping device .			
	a) Lung	b) Liver	✓c) Heart	d) Vein
192	Normal pH of human blood is .			
	a) 4.4	b) 5.4	c) 6.4	✓d) 7.4
193	Which of the following is not true about histamine ?			
	a) Produced by basophills	b) Causes dilation of blood capillaries	c) Cause inflammation	✓d) Released by Eosinophils
194	Platelets are fragments of large cells called .			
	a) Microkaryoctyes	b) Erythrocytes	✓c) Megakaryocytes	d) Leucocytes
195	One cubic millimeter of human male blood contain RBC .			
	a) 4 - 4.5 millions	✓b) 5 - 5.5 millions	c) 6 - 6.5 millions	d) 7 - 7.5 millions
196	The plasma proteins constitute percent by weight of plasma .			
	✓a) 7 - 9 %	b) 9 - 11 %	c) 11 - 13 %	d) 13 - 15 %
197	Histamine is produced by .			
	a) Neutrphils	b) Eosinoophils	✓c) Basophils	d) Moncytes
198	Thalassaemia is also called .			
	✓a) Cooley's anaemia	b) Thomas anaemia	c) Pete's anaemia	d) Mendl's anaemia
199	Enlargement of spleen is seen in .			
	a) Blood cancer	b) Thalassaemia	c) Odema	✓d) Hepatitis
200	The substance which inhibits blood clotting .			
	✓a) Heparin	b) Histamine	c) Fibrin	d) Albumin
201	The …….. helps defend the body again foregind invaders .			
	a) Circulatory system	✓b) Lymphatic system	c) Heart	d) None of these
202	Antibodies are produced from .			
	a) Eosinphils	b) Basophils	c) Monocytes	✓d) Lymphocytes
203	Antiserum is a serum containing .			
	✓a) Antibodies	b) Antigen	c) Antibiotics	d) Anticancer chemicals
204	In cell mediated response			
	a) B - cells	✓b) T - cells	c) Lymphs	d) None of these
205	Antigen or immunogen is a foreign substance , often a protein which stimulates the formation of			
	✓a) Antibodies	b) Antiseptic	c) Both a & b	d) None of these
206	The use of ……….. which stimulate the production of antibodies in the body , and making a person immune .			
	a) Antibodies	✓b) Vaccines	c) Antigen	d) None of these

207	**Naturally induced immunity is also called .**			
	✓a) Auto immune	b) Anti serum	c) Passive immunity	d) None of these
208	**Curved or comma shaped bacteria are called .**			
	✓a) Vibrio	b) Spirilum	c) Spirochetes	d) Bacilli
209	**When cocci occur in pairs , their arrangement is .✓Example of rod shaped bacteria is .**			
	a) Spirocheta	b) H.microbium	c) S.Aureus	✓d) Escherichia coli
210	**When cocci form long chain of cells then arrangement is called as .**			
	a) Tetrad	b) Diplococcus	c) Sarcina	✓d) Streptococci
211	**A tetrad is a square of .**			
	a) 2 Cocci	✓b) 4 Cocci	c) 6 Cocci	d) 8 Cocci
212	**When the division is in three planes , it will produce a .**			
	✓a) Sarcina arrangement	b) Tetrad arrangement	c) Bivalent arrangement	d) Helical arrangement
213	**When division occurred is random planes it will produce a ----- arrangement.**			
	✓a) Staphylococcus	b) Diplococcus	c) Streptococcus	d) Bacillococcus
214	**If tuft of flagella is present only at one pole of bacteria then these are called as .**			
	a) Monotrichous	b) Peritrichous	c) Amphitrichous	✓d) Lophotrichous
215	**Bacterial pathogenicity is due to .**			
	a) Envelope of all cell	b) Capsule	✓c) Slime	d) Cell wall
216	**Important vector in modern genetic .**			
	a) Nucleoid	✓b) Plasmid	c) Mesosome	d) Ribosome
217	**Cysts are dormant , thick - walled , desiccation resistant forms and develop during .**			
	a) Late stage of cell growth	b) Differentiation of reproductive cells	✓c) Differentiation of vegetative cells	d) During conjugation
218	**When tuft of flagella is present at each of two poles in bacteria is known as .**			
	a) Artichous	b) Lopthorichous	c) Peritrichous	✓d) Amphitrichous
219	**Mesosomes are internal extensions of .**			
	a) Cell wall	b) Golgi complex	✓c) Cell memebrane	d) Endoplasmic reticulum
220	**Cell wall is absent in .**			
	a) E.Coli	✓b) Mycoplasma	c) Vibrio	d) Spriochete
221	**Pili are made up of special protein called .**			
	✓a) Pillin	b) Flagellin	c) Tubulin	d) Myosin
222	**Bacteria without any flagella are called.**			
	a) Amphitrichous	b) Monotrichous	c) Lophotrichous	✓d) Atrichous
223	**Cell wall of gram positive bacteria are stained .**			
	a) Pink	b) Red	c) Green	✓d) Purple
224	**Which one is present is all bacteria ?**			
	✓a) Cell membrane	b) Mesosome	c) Ribosomes	d) Plasmid
225	**Primary function of flagella is to help in .**			
	a) Induction	✓b) Motility	c) Conjugation	d) Adhesion
226	**Hollow , nonhelical , filamentous appendages present in bacteria are .**			
	a) Cilia	b) Fimbrie	c) Flagella	✓d) Pili
227	**Slime provides greater pathogenicity to bacteria and protects them against .**			
	a) Pinocytosis	✓b) Phagocytosis	c) Invasion	d) Exocytosis
228	**The cell walls of most bacteria have a unique macromolecule called .**			

	a) Teichoic acid	b) Lipoprotein	✓c) Peptidoglycan	d) Polysaccharide
229	**Spores are resistant to adverse physical environment condition such as .**			
	a) High temperature	b) Desiccation	c) Chemical agents	✓d) All of these
230	**Dormant , thick-walled , desiccation resistant forms present inside bacteria are .**			
	✓a) Cysts	b) Exospores	c) Endospores	d) Mesosome
231	**Bacteria that cannot synthesize their organic compounds from simple inorganic substances are .**			
	a) Autotrophs	✓b) Heterotrophs	c) Symbionts	d) Lichen
232	**Chemosynthetic bacteria oxidize inorganic compounds like .**			
	a) Ammonia	b) Nitrogen	c) Sulphur	✓d) All of these
233	**Bacteria which get their food from dead organic matter are .**			
	a) Parasitic	✓b) Saprophytic	c) Symbiotic	d) Chemosynthetic
234	**Which one is a microaerophilic bacterium ?**			
	a) E.coil	b) Spirochete	c) Pseudomonas	✓d) Camphylobacter
235	**Which of the following is anaerobic bacteria ?**			
	a) Pseudomonas	b) Escherichia coli	✓c) Spirochete	d) Campylobacter
236	**Asexual reproduction in bacteria occurs by .**			
	a) Conjugation	b) Transduction	c) Transformation	✓d) Binary Fission
237	**Bacteria divided at exponential rate during .**			
	a) Stationary phase	b) Decline phase	✓c) Log phase	d) Log phase
238	**Which is an aerobic bacterium ?**			
	a) E.coli	b) Spirochete	c) Campylobacter	✓d) Pseudomonas
239	**The interval of time until the completion of next division is known as .**			
	a) Incubation time	✓b) Generation time	c) Multiplication time	d) Cell cycle
240	**The heat that causes coagulation of proteins and kills the microbes .**			
	✓a) Moist heat	b) Dry heat	c) Intense heat	d) Mild heat
241	**The heat that causes oxidation of chemical constituents of microbes and kills them .**			
	a) Moist heat	✓b) Dry heat	c) Intense heat	d) Mild heat
242	**Membrane filters are used to sterilize heat sensitive compounds like .**			
	a) Antibiotics	b) Seras	c) Hormones	✓d) All of these
243	**Disinfectants inhibit the growth of vegetative cell and are used on .**			
	a) Living materials	b) Living and non living materials	✓c) Non living materials	d) Living tissues
244	**Methods of prevention and treatment that have been introduced to control microbial diseases included .**			
	a) Immunization	b) Antisepsis	c) Chemotherapy	✓d) All of these
245	**The rays generally used for sterilization process are .**			
	a) Alpha	b) Beta	✓c) Gamma	d) X-rays
246	**Antibiotics are synthesized and secreted by certain bacteria , actinomycetes and .**			
	a) Algae	✓b) Fungi	c) Lichen	d) Virus
247	**Misuse of antibiotic such as penicillin can cause .**			
	✓a) Allergic reactions	b) Headache	c) Deafness	d) Mental retardness
248	**Chemotherapeutic chemical substances which are used in treatment of Infectious disease are .**			
	a) Antibodies	b) Antigens	✓c) Antibiotics	d) Disinfectants
249	**Lovastain is used for lowering blood .**			
	a) Pressure	b) Glucose	✓c) Cholesterol	d) Neraspora

250	Which of the following is not symptom of ergotism ?			
	a) Psychotic Delusion	b) Convulsion	c) Gangrene	✓d) Indigestion
251	Which is used to inhibit fungal growth ?			
	a) Lovastain	b) Cyclosporin	c) Griseofulvin	d) Ergotin
252	Aspergillus fumigates causes aspergillosis but only in persons with defective immune system such as			
	a) HAV	b) Hepatitis	c) HIV	✓d) AIDS
253	Citric acid is obtained from .			
	a) Penicillium	✓b) Aspergillus	c) Sacchromyces	d) Nevrospora
254	Which one is an example of foliose lichens ?			
	a) Ramalina	b) Bacidia	c) Lecanora	✓d) Permelia
255	They are ecolically important as bioindicators of air pollution .			
	✓a) Lichens	b) Mycorrhizae	c) Yeast	d) Viruses
256	Which one is not animal fungal disease ?			
	a) Ringworm	b) Athletes' foot	✓c) Powdery mildew	d) Histoplasmosis
257	Which one is not plant disease ?			
	a) Potato wilt	b) Powdery mildew	c) Ergot of rye	✓d) Histoplasmosis
258	Candida albicans , a yeast , causes oral and vaginal thrush i.e. ,			
	a) Candidiasis	b) Candidosis	✓c) Both a & b	d) None of these
259	Which of the following is not an example of poisonous mushroom ?			
	a) Death cap / death angel	b) Jack - O ' lantern mushroom	c) Amanita	✓d) Agaricus
260	Reindeer moss is .			
	a) Mycorrhiza	✓b) Lichen	c) Funaria	d) Alga
261	Ginkgo belongs to class .			
	a) Angiospermae	b) Filicinease	✓c) Gymnospermae	d) Anthoceropsida
262	The term gymnospermae literally means .			
	a) Enclosed seeded	✓b) Naked seeded	c) Open seeded	d) Seedless
263	The megaporophylls bearing ovules are not folded and joined at the margins to form an ovary in .			
	a) Filicineae	b) Dicotyledonae	c) Monocotyledonae	✓d) Gymnospermae
264	The megasporophylls bearing ovules are not folded and joined at the margins to form an			
	a) Ovule	b) Seed	✓c) Ovary	d) Fruit
265	In angiosperm , megaspore develop into female gemetophyte which consist of .			
	a) 3 Cells	b) 5 Cells	✓c) 7 Cells	d) 9 Cells
266	--------------------------------make up 235,000 of the 360,000 known species of plants .			
	✓a) Angiosperms	b) Gymnosperms	c) Ferns	d) Bryophytes
267	Female gametophyte in flowering plants is .			
	a) Ovary	b) Archegonium	✓c) Seed	d) Embryo sac
268	An ovule is an integumented in dehiscent .			
	a) Microporangium	✓b) Megasporangium	c) Sporangium	d) Seed
269	The interval of time unit the completion of next division is known as .			
	a) Interphase	✓b) Generation time	c) Reproductive time	d) Growth
270	The part of flower which develops into fruit is .			
	a) Flower	b) Seed	c) Ovule wall	✓d) Ovary
271	Ovary wall develops into the .			

	✓a) Fruit	b) Vegetable	c) Seed coats	d) Pericarp
272	**Double fertilization is a characteristic of**			
	a) Gymnosperms	✓b) Angiosperms	c) Bryophytes	d) Mosses
273	**Which one of the following is the characteristics of monocots ?**			
	a) 4 or 5 petals	✓b) Scattered vascular bundles in stem	c) Netted veins	d) Woody stems
274	**The class Angiospermae is divided into two sub - classes according to the number of cotyledons in the**			
	a) Zygote	b) Seed	✓c) Embryo	d) None of these
275	**Nonocot have -----------------------------------**			
	✓a) Parallel	b) Net	c) Both a & b	d) None of these
276	**The asexual reproduction is sponges occurs by .**			
	✓a) Budding	b) Fragmentation	c) Spores	d) Condia
277	**The poriferans are pore - bearing animals , commonly called .**			
	a) Nematodes	b) Cnidarians	✓c) Sponges	d) Roundworms
278	**In most sponges this spongocoel may be divided into flagellated chambers or canals , lined by flagellated .**			
	✓a) Choanocytes	b) Pinacocytes	c) Amoebocytes	d) Phagocytes
279	**The polyp is reduced and medusa is dominant .**			
	a) Sea Anemon	b) Hydra	✓c) Jelly fish	d) Obelia
280	**Sea anemone belongs to phylum .**			
	✓a) Coelentrata	b) Annelida	c) Arthropoda	d) Echoniodermate
281	**Coral reefs are mostly formed of .**			
	✓a) Calcium carbonate	b) Silica	c) Chitin	d) Lignin
282	**Haem portion of hemoglobin contains an atom of .**			
	a) Magnesium Mg^{++}	b) Phosphorus K^{++}	c) Calcium Ca^{++}	✓d) Iron Fe^{++}
283	**Which metal atom is present in chlorophyll ?**			
	a) Cu	b) Fe	✓c) Mg	d) K
284	**Chlorophyll a is .**			
	a) Yellow green	✓b) Blue green	c) Orange green	d) Yellow green dark
285	**Correct molecular formula for chlorophyll " a " is .**			
	✓a) $C_{55}H_{72}O_5N_4Mg$	b) $C_{55}H_{72}O_4N_5Mg$	c) $C_{55}H_{70}O_5N_4Mg$	d) $C_{55}H_{70}O_5N_5Mg$
286	**Which wavelengths are mainly absorbed by chlorophyll ?**			
	✓a) Violet blue and orange red	b) Violet and orange	c) Green and blue	d) Red and indigo
287	**Magnesium is an important nutrient in green plants as it is an essential component of .**			
	a) Protein	b) Chlorophyll	c) Hemoglobin	✓d) Glucose
288	**The colour of chlorophyll b is .**			
	a) Orange - red	✓b) Yellow - green	c) Blue - green	d) Orange - green
289	**Photosystem II has the form of chlorophyll a which absorbs best light of .**			
	a) 670 nm	✓b) 680 nm	c) 690 nm	d) 700 nm
290	**The products of photosynthetic light reactions are .**			
	a) ATP and NADH	✓b) ATP , NADPH and O_2	c) ATP and NADPH	d) ATP and NAD
291	**Light can work in photosynthesis if only it is .**			
	✓a) Absorbed	b) Reflected	c) Transmitted	d) Refracted
292	**Plastocyanin protein contains .**			

	a) Iron	✓b) Copper	c) Magnessium	d) Potassium
293	Water splitting process of photosynthesis releasing oxygen is called .			
	a) Glycolysis	✓b) Photolysis	c) Hydrolysis	d) Electrolysis
294	Which of the following is electron carrier ?			
	a) Plastocyanin	b) Cytochromes	c) Plastoquinone	✓d) All of these
295	An enzyme NADP reductase transfers electrons from .			
	✓a) Fd to NADP	b) NADP to Fd	c) Fd to NADPH	d) Fd to ADP
296	Each photon of light excites .			
	a) Many electrons	b) 3 electrons	c) 2 electrons	✓d) Single electrons
297	What is not produced during cyclic electron flow ?			
	a) Oxygen	b) ATP	c) NADPH	✓d) Both a & c
298	Sugar is formed during .			
	a) Dark independent reactions	b) Dark dependent reactions	✓c) Light independent reactions	d) Light dependent reactions
299	The dark reaction consists of .			
	a) Carbon fixation	b) Reduction	c) Regeneration	✓d) All of these
300	During the dark reactions of photosynthesis the main process which occurs is .			
	a) Release of oxygen	b) Energy absorption	c) Formation of ATP	✓d) Adding of hydrogen to carbon dioxide
301	For fixing of three molecules of CO2 in Clavin cycle , what is needed ?			
	a) 6 ATP + 9 NADPH	✓b) 9 ATP + 6 NADPH	c) 18 ATP + 9 NADPH	d) 3 ATP + 3 NADPH
302	The NADPH molecule will produce reducing power for the sugar in the .			
	a) Chemiosmosis	b) Cyclic phosphorylation	✓c) Calvin cycle	d) Electron transport chain
303	For the synthesis of one molecule of glucose Calvin cycle operate how many times ?			
	a) Once	✓b) Twice	c) Thrice	d) Four times
304	Which of the following is a parasitic plant ?			
	a) Drosera	b) Dionea	✓c) Cuscuta	d) Sarracenia
305	Lichen is a symbiotic relationship between an alga and .			
	a) Gymnosperm	b) Pteridophyte	✓c) Fungus	d) Angiosperm roots
306	Root nodules are present in .			
	a) All photosynthetic plants	b) Gymnosperms	c) Non - leguminous plants	✓d) Leguminous planst
307	All of the insectivorous plants are .			
	a) Heterotrophs	✓b) Autotrophs	c) Saprotrophs	d) Parasitic
308	One of the following is not insectivorous plant .			
	a) Venus - fly trap	✓b) Cuscuta	c) Sundew	d) Pitcher plant
309	of oxygen in and carbon dioxide out occurs because of difference in partial pressures of these gases.			
	✓a) Diffusion	b) Effusion	c) Digestion	d) None of these
310	Blood in the lungs is separated from the alveolar air by extremely thin membranes of the and alveoli			
	a) Villi	b) Bronchi	✓c) Capillaries	d) Veins
311	In human being the respiratory pigment is .			
	✓a) Haemoglobin	b) Biliubin	c) Myoglobin	d) Haemocyanin

312	The maximum amount of oxygen which normal human blood absorbs and carries at the sea - level is about of blood .			
	✓a) 200 ml / 100 ml	b) 40 ml / 100 ml	c) 100 ml / 20 ml	d) None of these
313	When oxygen pressure falls below ------- mercury , as in many cells and tissues , the oxygen saturation of haemoglobin decreases very sharply .			
	✓a) 60 mm	b) 40 mm	c) 20 mm	d) None of these
314	When carbon dioxide pressure increases , the oxygen tension			
	a) Increase	✓b) Decrease	c) Both a & b	d) None of these
315	Increased carbon dioxide tension favours the greater liberation of from the blood to the tissue .			
	✓a) Oxygen	b) Sulphur	c) Carbon mono oxicde	d) None of these
316	Carboxyhaemoglobin is formed when carbon dioxide combines with .... of haemoglobin .			
	a) Oxygen	b) Amino group	c) Easter group	d) None of these
317	About ------------carbon dioxide is carried as bicarbonate ion combined with sodium in the plasma .			
	a) 80 %	✓b) 70 %	c) 20 %	d) 50 %
318	Carbon dioxide per 100 ml of venous blood is .			
	a) 50 ml	✓b) 54 ml	c) 98 ml	d) 99 ml
319	4 ml of carbon dioxide per 100 ml of blood as it passes through the			
	✓a) Lungs	b) Liver	c) Kidney	d) None of these
320	Asthma is associated with severe paroxysm of difficult .			
	a) Sleeping	b) Spreading	c) Walking	d) Breathing
321	Respiratory distress syndrome is common in .			
	a) All new borns	b) Abults	✓c) Premature infants	d) Old age people
322	Smoking especially in young adults is the most potential threat of			
	✓a) Lung cancer	b) Throat cancer	c) Kidney cancer	d) None of these
323	Tuberculoris is caused by			
	✓a) Mycobacterium tuberculosis	b) Smoking	c) Streptococcus	d) None of these
324	How many molecules of oxygen can bind with a molecule of myoglobin .			
	✓a) 01	b) 02	c) 03	d) 04
325	Myoglobin is also known as ---------------- haemoglobin .			
	a) Liver	b) Heart	✓c) Muscle	d) None of these
326	The volume of air taken inside the lungs and expelled during exercise is about			
	a) 1.5	b) 2.5	✓c) 3.5	d) 4.5
327	The amount of Carbon dioxide present in air is about .			
	a) 0.01 to 0.02 %	b) 0.03 to 0.04 %	✓c) 0.04 to 4 %	d) 0.05 to 0.07 %
328	At rest we inhale and exhale .... per munute .			
	a) 15 - 25 times	✓b) 15 - 20 times	c) 10 - 15 times	d) 11 - 20 times
329	The light falling on leaf surface is absorbed about .			
	✓a) 1 %	b) 25 %	c) 50 %	d) 100 %
330	The shrinkage of protoplast of a cell .			
	a) Incipient plasmolysis	b) Deplasmolysis	c) Guttation	✓d) Plasmolysis
331	Sieve tube cells and companion cells communicate with each other through .			
	a) Sieve pores	b) Casparian strip	✓c) Plasmodesmata	d) Cell membranes
332	In the maximum depth of roots of prosopis is .			

	a) 40 meters	✓b) 50 meters	c) 60 meters	d) 70 meters
333	Path way of consulting interconnected protoplasts in roots cells is called.			
	a) Apoplast	✓b) Symplast	c) Tonoplast	d) Protoplast
334	Roots bear a dense cluster of tiny hair like structures which are extensions of .			
	✓a) Epidermal cells	b) Pericycle cells	c) Endodermal cells	d) Cortical cells
335	Apoplast pathway becomes discontinous in endodermis due to .			
	a) Pericycle	✓b) Casparian strip	c) Cortex	d) Xylem
336	They theory called , pressure - Flow Theory , is the most acceptable theory for the transport in the phloem of			
	a) Gymnosperm	✓b) Angiosperms	c) Bryophytes	d) None of these
337	Water moves out of sieve tube cell by………… , lowering the hydrostatic pressure .			
	a) Diffusion	b) Effusion	✓c) Osmosis	d) None of these

Subjective

Q.NO.2 (Ch=2,3,8,10,11)

Most Important Questions	Ch	Most Important Questions	Ch
1. What is heat capacity of water ? Give its importance.	2	2. Define enzymes.	3
3. Define protective role of water.	2	4. Give role and examples of enzymes activator.	3
5. Differentiate between Amylose and Amylopectin.	2	6. Define cofactor with example.	3
7. Differentiate between glycosidic and peptide bond.	2	8. Differentiate between Co-factor and Co-enzyme.	3
9. What are oligosaccharides?	2	10. How is Prosthetic group different from Co-enzyme?	3
11. What are lipids? Give two roles of waxes.	2	12. Differentiate between co-factor and activator.	3
13. What are waxes?	2	14. What is difference between pepsin and pepsinogen?	3
15. Give general formula for an Amino Acid.	2	16. Give any two characteristics of enzymes.	3
17. What are Globular proteins? Give examples.	2	18. Define lock and key model of enzyme.	3
19. Differentiate between Nucleoside and Nucleotide.	2	20. Differentiate between reversible and irreversible enzyme inhibitors.	3
21. What is phosphodiester linkage? Sketch.	2	22. What are competitive and non-competitive enzyme inhibitors?	3
Most Important Questions	**Ch**	**Most Important Questions**	**Ch**
23. Enlist four plant diseases caused by fugi.	8	24. What are lichens? Write abour their ecological role.	8
25. Differentiate between obligate and facultative parasite.	8	26. Define lichens. Give its significance.	8
27. Name the type and hyphae and sexual spores in sac fungi.	8	28. Differentiate between plasmogamy and karyogamy.	8
29. Write down two similarities between plans and fungi.	8	30. What are sepatate and non-septate hyphae?	8
31. What are carnivorous fugi?	8	32. What do you know about budding and parasexuality?	8
33. Write four important points of algae.	8	34. What are conidia and spores?	8
35. Differentiate between fungus like protists and fugi.	8	36. What is meant by parasexuality? Give its importance.	8
37. 8- What is histoplasmosis?	8	38. 18- Differentiate between conidiophores and coenocytic hypha.	8
39. 9- Why rust and smut are called so?	8	40. 19- Differentiate between ascus and basidium.	8
41. 10- What is nucear mitosis?	8	42. 20- What are toad stools? Give example.	8

Most Important Questions	Ch	Most Important Questions	Ch
43. What is hermaphrodite organism?	10	44. Name four harmful effects of insects.	10
45. Write basic characteristics of chordates, give example.	10	46. Give three basic characteristics of phylum chordate.	10
47. What are corel reefs?	10	48. What is polymorphism? Give example.	10
49. Define swim bladder. Give its functions.	10	50. Differentate between sac like and tube like digestive system.	10
51. What is regeneration? Give example.	10	52. What is metamorphosis?	10
53. What are diploblastic animals?	10	54. Differentiate between parazoa and eumetazoa.	10
55. Define placenta. Write its functions.	10	56. What are archaeopteryx?give its two characteristics.	10
57. Write the two differences between protostomes and deuterostomes.	10	58. Differentiate between polyps and medusases.	10
59. Differentiate between gastropods and cephalopods.	10	60. Differentiate between diploblastic and triploblastic organism.	10
61. What is regeneration, give its importance.	10	62. Write down affinities of echinoderm with hemichordates.	10
Most Important Questions	**Ch**	**Most Important Questions**	**Ch**
63. Give the importance of ATP.	11	64. What are accessory pigments? Give their one importance.	11
65. Define the term Bioenergetics.	11	66. What is fermentation? Give its two types.	11
67. What is glycolysis? Where it takes place in cell?	11	68. Differentiate between antenna complex and reaction center.	11
69. How action spectra can be obtained?	11	70. Give the function spectrophotometer.	11
71. What is cellular respiration?	11	72. Define glycolysis. Where does it take place?	11
73. What is payoff phase of glycolysis?	11	74. Write the photolysis of water in photosynthesis.	11
75. How does carbon dioxide absorb by cell wall of mesophyll cells?	11	76. What is Z-scheme of photosynthesis?	11
77. Define photosynthesis with equation.	11	78. Differentiate between photophosphorylation and oxidative photophosphorylation.	11
79. What do you mean by action spectrum.	11	80. Define alcoholic fermentation. Write its equation.	11

Q.NO.3 (Ch=1,4,7,9,14)

Most Important Questions	Ch	Most Important Questions	Ch
1. What is biome?	1	2. Write down salient features of cell theory.	4
3. What is hydroponic culture technique?	1	4. What is endosytosis?	4
5. Differentiate between deductive and inductive reasoning.	1	6. What is endocytosis? Differentiate betwenn phagocytosis and pinocytosis.	4
7. Differentiate between micro and macromolecules?	1	8. Define differentially permeable membrane.	4
9. What is biome?	1	10. What are storage diseases? Give an example.	4
11. Write the name of four eras of geological times.	1	12. Give the important functions of cytoplasm.	4
13. What is pylatic lineage?	1	14. What is chromoplast? Give its functions.	4
15. Define theory. Give important features of a god theory.	1	16. Give the chemical composition of primary and secondary cell wall.	4
17. Define population, give its one example.	1	18. What are microfilaments? Give their functions.	4
19. What is deductive reasoning? Give one example.		20. Define fluid mosaic model of cell membrane.	4
21. Define parasitology.	1	22. Write down two functions of golgi apparatus.	4
23. Differentiate between anatomy and morphology.	1	24. Give the function of endoplasmic reticulum.	4
25. Define ecosystem with an example.	1	26. Define autophagosome.	4
27. Differentiate between gene therapy and chemotherapy.	1	28. What is resolution of human eye and electron microscope?	4
Most Important Questions	**Ch**	**Most Important Questions**	**Ch**

29. What is sleeping sickness?	7	30. Differentiate between ovule and seed.	9
31. Write down functions and micro and macro nuceli in ciliates.	7	32. Why bryophytes are called amphibious plants?	9
33. Write down four characteristics and green algae similar to plans.	7	34. Differentiate between microphyll and megaphyll.	9
35. Write down two diffenreces between fungi and oomycotes.	7	36. Define double fertilization.	9
37. What are choanoflagellates?	7	38. Write down two steps involved in evolution of seed.	9
39. What are protists? How are they different from animals and plants?	7	40. Describe adaptation of bryophytes to land habitat.	9
41. What are trichonymphas?	7	42. Write two advanced characteristics of anthoceropsida sporophyte.	9
43. How algae differ from plants?	7	44. What are gymnosperms? Give an example.	9
45. Write down two characteristics of ciliates.	7	46. Differentiate between bryophytes and tracheophytes.	9
47. How ciliates are different from other protozoans?	7	48. Define cercinate vernation.	9
49. Write down two characteristics of apicomplexans.	7	50. Define ovule and embryo sac.	9
51. What is chlorella? Give its importance.	7	52. What are fronds?	9
53. Write down two characteristic of dinoflagellates.	7	54. Write botanical name of two plants belong to family solanaceae.	9
55. Write four important features of algae.	7	56. Differentiate between microgametophyte and megagametophyte.	9
57. How do flagellates get food?	7		

Most Important Questions	Ch	Most Important Questions	Ch
58. What is guttation?	14	59. Differentiate between single and double circuit heart.	14
60. Define immunity.	14	61. What is humoral immune response.	14
62. Differentiate between active and passive immunity.	14	63. Differentiate between thrombus and embolus.	14
64. Differentiate between plasmolysis and deplasmolysis.	14	65. Describe CO_2 concentration in artery and venous blood.	14
66. What is single circuit heart? Give an example.	14	67. What is imbibition?	14
68. Differentiate between apoplast and symplast pathway.	14	69. What is honey dew? Give its composition.	14
70. What is pressure potential?	14	71. What are factors affecting capacity of hemoglobin to combine with oxygen.	14
72. What are blue babies?	14	73. What do you know about bleeding in plants?	14
74. What is pressure flow theory? Who proposed it?	14	75. What is cell-mediated and humoral immune response?	14

Q.NO.4 (Ch=5,6,12,13)

Most Important Questions	Ch	Most Important Questions	Ch
1. Write down four characteristics of viruses.	5	2. Define species and virology.	5
3. What are pocks?	5	4. What are prions?	5
5. Write four names of viral diseases common in human beings.	5	6. Define binomial nomenclature. Give an example.	5
7. What are symptoms of small pox?	5	8. Differentiate between procariotique and eucariotique.	5
9. Sketch and label diagram of bacteriophage.	5	10. Write down five postulates of germ theory of disease by Robert Koch.	5
11. Differentiate between gram positive and gram negative bacteria.	6	12. Name three general shapes of bacteria and explain only one.	6
13. Write down misuses of antibiotics.	6	14. Differentiate between tetrad and sarcina.	6

15. What are pilli? Give their functions.	6	16. Differentiate between lophotrichous and amphitrichous.	6
17. Differentiate between streptococcus and staphylococcus bacteria.	6	18. Differentiate between amphitrichous and peritrichous bacteria.	6
Most Important Questions	**Ch**	**Most Important Questions**	**Ch**
19. What is rubisco? Give its functions.	13	20. What is respiratory distress syndrome?	13
21. What are spiracles? Give their functions.	13	22. What is diving reflex?	13
23. How air is belter medium for respiration than water.	13	24. What is lungs cancer?	13
25. What is asthma? Give its cause.	13	26. Why oxygen can be easily obtained from air as compared to water?	13
27. Write different ways of respiration in frog.	13	28. How does respiration take place in earthworm?	13
29. What is larynx or voice box?	13	30. What are alveoli? Give their dunctions.	13
31. What is diaphragm? In which group of animals it is found?	13	32. Give the composition of breath air in humans.	13
33. Differentiate between bronchi and bronshioles.	13	34. Give two properties of respiratory surfaces in animals.	13
35. What is emphysema?	13	36. What is photorespiration?	13
37. Write two properties of respiratory surfaces.	13	38. Differentiate between pulmonary and cutaneous respiration.	13
39. What is chlorosis and what is their cause?	12	40. Write only two functions of oral cavity.	12
41. What are the main reason of chlorosis in plants?	12	42. Define peristalsis.	12
43. Discuss parasitic nutrition in plants.	12	44. What is the advantages of a digestivetract as compared with a digestive cavity?	12
45. What are root nodules? Give their role.	12	46. Differentiate between chyme and bolus.	12
47. What is detritus feeding? Give examples.	12	48. Describe the role of trypsin in digestion.	12
49. What is filter feeding?	12	50. Give two functions of human liver.	12
51. What are fluid feeders? Give example.	12	52. What is bile? Give its functions.	12
53. Differentiate between facultative and obligate parasite.	12	54. Define Villi? write down functions of Villi.	12
55. Define gastrovascular cavity with example.	12	56. Give the role of large intestine of human.	12
57. Define sac like digestive system and tube like digestive system regarding their efficiency.	12	58. What is Dyspepsia?	12
59. Differentiate between Herbivores and Carnivores.	12	60. How adipose tissue is formed?	12
61. Differentiate between ingestion and Egestion.	12	62. Write down causes and treatment of anorexia nervosa.	12
63. Differentiate between detritivores and omnivores.	12	64. What is ulcer?	12
65. Differentiate between absorption and assimilation	12	66. Write only two functions of oral cavity.	12

LONG QUESTIONS

Question No. 5

1	(a)	How study of Biology helped mankind to improve production of food?	(b)	Soil water moves and reaches xylem tissues by various pathways, explain.
2	(a)	What is the role of study of Biology in the welfare of mankind in the field of protection and conservation of environment?	(b)	Discuss two main types of immunity.

3	(a)	Give various components and functions of Lymphatic System.	(b)	Discuss transpiration as a necessary evil.

Question No. 6

1	(a)	Explain mutualistic nutrition in fungi.	(b)	Describe biological properties and importance of water.
2	(a)	Describe asexual reproduction in fungi.	(b)	What are polysaccharides? Describe different types and give examples.
3	(a)	Explain various economic gains and losses due to fungi.	(b)	Write the Watson and Crick model of DNA.

Question No. 7

1	(a)	Explain about use and misuse of antibiotics.	(b)	Describe the different adaptive characters for terrestrial environment in bryophyte.
2	(a)	Discuss nutrition in bacteria.	(b)	Discuss evolution of megaphyll leaf.
3	(a)	Describe habitat, structure and reproduction in nostoc.	(b)	Describe prothallus of adiantum and What is alternation of generation? Give its significance

Question No. 8

1	(a)	Describe some viral diseases, which are common in Pakistan.	(b)	What is photo phosphotylation? Explain non-cyclic photo phosphorylation.
2	(a)	What is hepatitis? Give its symptoms and discuss its three common types.	(b)	Give in detail the phases of Calvin cycle.
3	(a)	Describe lytic cycle of bacteriophage (with diagram).	(b)	Sketch Krebs Cycle, (no description).

Question No. 9

1	(a)	Discuss structure and functions of endoplasmic reticulum.	(b)	Give the role of large and small intestine in human beings.
2	(a)	What are plastids? Explain the structure and function of chloroplast. Draw figure.	(b)	Describe digestion in hydra.
3	(a)	What are lysosomes? Explain their phagocytic role with the help of diagram.	(b)	Discuss the process of nutrition in insectivorous plants.